Speaker Biographies, HSRP Virtual Public Meeting
Webinar, April 28, 2020, 1pm EDT

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Captain (NOAA, ret.) Andrew A. Armstrong III

Co-Director, NOAA-University of New Hampshire Joint Hydrographic Center

Captain (NOAA, ret.) Andrew Armstrong is Co-Director of the NOAA/University of New Hampshire Joint Hydrographic Center where he leads NOAA's role in the research, mapping and educational programs of the Center. He is the Bathymetric Data Acquisition team leader for the U.S. Interagency Extended Continental Shelf Task Project where he has been responsible for mapping nearly 875,000 square nautical miles of the seafloor in the Arctic Ocean, the U.S. Pacific Islands, and along the U.S. Atlantic and Pacific margins. Andy joined the NOAA Commissioned Officer Corps in 1974, following 4 years of commissioned service in the U.S. Navy. He retired from the NOAA Corps in 2001, continuing with NOAA as Co-Director of the Joint Hydrographic Center in a civil service capacity. Throughout his NOAA career, he has specialized in hydrographic surveying and seafloor mapping. He has served on several NOAA hydrographic ships and field parties, conducting hydrographic and bathymetric surveys in Alaska and Hawaii, along the Pacific, Atlantic, Gulf of Mexico coasts, and in the Great Lakes. He served as commanding officer of *NOAA Ship Peirce* and *NOAA Ship Whiting*, and as chief of NOAA's Hydrographic Surveys Division. He has a B.S. in geology from Tulane University and an M.S. in technical management from The Johns Hopkins University.

Ms. Juliana P. Blackwell

Director, National Geodetic Survey, NOS, NOAA

Ms. Juliana P. Blackwell is the Director of NOAA's National Geodetic Survey (NGS). She is responsible for the financial, administrative and programmatic performance of NGS, the lead federal agency for positioning activities in the Nation. She oversees the management and delivery of the National Spatial Reference System (NSRS), the nation's consistent coordinate system for latitude, longitude, height, shoreline, gravity measurements and shoreline information throughout the United States. NSRS supports a wide range of important activities including mapping and charting, navigation, flood risk determination, transportation, land use and ecosystem management. Ms. Blackwell serves as Chair of the Federal Geodetic Control Subcommittee of the Federal Geographic Data Committee, exercising government-wide leadership in the development and improvement of geodetic surveying specifications, methods, instrumentation, and data transfers. She represents NOAA on the interagency Alaska Mapping Executive Committee and the 3D Elevation Program Executive Forum. A graduate of Tufts University, Ms. Blackwell earned a Bachelor of Science degree in mathematics. She received a master's in business administration from the University of Maryland's Robert H. Smith School of Business.

Mr. Richard Edwing

Director, Center for Operational Oceanographic Products and Services, NOS, NOAA

Richard Edwing is the director of **NOAA's Center for Operational Oceanographic Products and Services** (CO-OPS), the nation's authoritative source for accurate, reliable and timely water-level and current measurements. In his role, he oversees and continues to improve this 24-hour a day operation to provide mariners, coastal managers, and many other users with real-time data on ocean conditions along America's 95,000-mile coastline. Edwing's career with NOAA spans three decades with much of that time spent advancing NOAA's navigation services mission to provide the nation with up-to-date ocean, weather, mapping and positioning data and tools for safe transits to and from U.S. ports. He started with NOAA in 1976 in the Marine Boundary Program, a partnership between NOAA and coastal states to establish tidal data such as base elevations in sensitive wetland areas vulnerable to urban growth. He was the division chief of the National Ocean Service's policy, planning and analysis division, where he shaped NOAA's priorities for ocean issues, as well as identified budget needs to advance and modernize ocean science. He graduated in 1976 from George Washington University with a Bachelor of Science degree in oceanography, and completed graduate level work in civil engineering at the University of Maryland. For two hundred years, CO-OPS and its predecessor agencies have provided the critical oceanographic data needed to protect life, property, and the marine environment. The Center manages NOAA's Physical Oceanographic Real-Time System, the National Water Level Program, and National Current Observation Program - major national systems critical to keeping America's oceans, coasts, and Great Lakes safe, healthy and productive.

Dr. Neil Jacobs

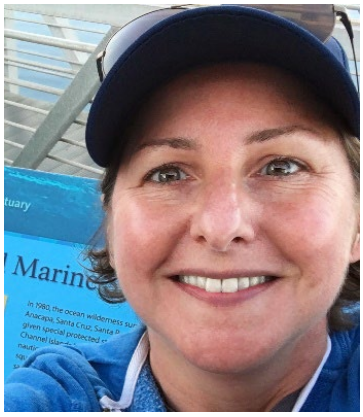
Assistant Secretary of Commerce for Environmental Observation and Prediction, performing the duties of Under Secretary of Commerce for Oceans and Atmosphere, National Oceanic and Atmospheric Administration

Dr. Neil Jacobs is the Assistant Secretary of Commerce for Environmental Observation and Prediction, performing the duties of Under Secretary of Commerce for Oceans and Atmosphere. In this role, Dr. Jacobs is responsible for the strategic direction and oversight of over $3.4 billion in annual spending, supporting NOAA's broad portfolio of sea, air, land, and space observing platforms as well as the critical infrastructure for the assimilation and exploitation of environmental data. Previously as the Chief Atmospheric Scientist at Panasonic Avionics Corporation, he directed the research and development of both the aviation weather observing platform and weather forecast model programs. He was previously the Chair of the

American Meteorological Society's Forecast Improvement Group, and also served on the World Meteorological Organization's aircraft-based observing systems expert team. Dr. Jacobs holds a bachelor degree in mathematics and physics from the University of South Carolina and masters and doctoral degrees in atmospheric science from North Carolina State University.

Ms. Nicole R. LeBoeuf

Acting Assistant Administrator, National Ocean Service, NOAA



Nicole R. LeBoeuf is the Acting Assistant Administrator, and the permanent Deputy Assistant Administrator, for the National Oceanic and Atmospheric Administration's National Ocean Service, with 1,700 staff in more than 50 locations. Ms. LeBoeuf oversees all strategic and operational aspects to provide science-based solutions through collaborative partnerships to address evolving economic, environmental, and social pressures on our ocean, coasts, and coastal communities. She worked on issues ranging from protected species conservation and oil spill response to international treaty negotiation. Prior to NOS, Ms. LeBoeuf served as Acting Deputy Director of the Office of Protected Resources in NOAA Fisheries, where she maintained oversight of the protected species conservation and management portfolio. She spent four years as the Chief of the Marine Mammal and Sea Turtle Conservation Division in the Office of Protected Resources where she is a subject matter expert in the application of scientific information for the implementation of the Marine Mammal Protection Act and the Endangered Species Act legislation. Ms. LeBoeuf served in the NOAA Budget Office as NOAA's finance lead during the Deepwater Horizon oil spill. Her international expertise includes overseeing NOAA's Antarctic Treaty System responsibilities, coordinating protected species bycatch reduction efforts in multiple tuna treaties, and representing NOAA at the U.N. General Assembly regarding the protection of deep sea corals. Ms. LeBoeuf holds a Bachelor's Degree in Marine Biology from Texas A&M University and a Master's Degree in Sustainable Development and Conservation Biology from the University of Maryland.

Dr. Larry Mayer

Director, Center for Coastal & Ocean Mapping, and Co-Director, Joint Hydrographic Center, University of New Hampshire

Larry Mayer is a Professor and the Director of the School of Marine Science and Ocean Engineering and The Center for Coastal and Ocean Mapping at the University of New Hampshire. He graduated magna cum laude with an Honors degree in Geology from the University of Rhode Island in 1973 and received a Ph.D. from the Scripps Institution of Oceanography in Marine Geophysics in 1979. At Scripps, he worked with the Marine Physical Laboratory's Deep-Tow Geophysical package, applying this sophisticated acoustic sensor to problems of deep-sea mapping and the history of climate. After being selected as an astronaut candidate finalist for NASA's first class of mission specialists, Larry did a Post-Doc at the School of Oceanography at the University of Rhode Island and worked on the early development of the Chirp Sonar, problems of deep-sea sediment transport and paleoceanography.

He was an Assistant Professor at Dalhousie University and moved to the University of New Brunswick to take up the NSERC Industrial Research Chair in Ocean Mapping. In 2000 he became the founding director of the Center for Coastal and Ocean Mapping at the University of New Hampshire and the co-director of the NOAA/UNH Joint Hydrographic Center. Larry participated in more than 90 cruises (over 70 months at sea!) in 35 years, and has been chief or co-chief scientist of numerous expeditions, including two legs of the Ocean Drilling Program and eight mapping expeditions in the ice covered regions of the high Arctic. He served on, or chaired, many international panels and committees and a large number of publications on a variety of topics in marine geology and geophysics. He was a member of the President's Panel on Ocean Exploration, National Science Foundation's Advisory Committee for the Geosciences, and chaired a National Academy of Science Committee on national needs for coastal mapping and charting as well as the National Academies report on the impact of the Deepwater Horizon Spill on ecosystem services in the Gulf of Mexico. He was the co-chair of the NOAA's Ocean Exploration Advisory Working Group, the Vice-Chair of the Consortium of Ocean Leadership's Board of Trustees, and is the Chair of the National Academies of Science's Oceans Studies Board, a member of the State Department's Extended Continental Shelf Task Force and the Navy's SCICEX Advisory Committee. In 2016 he was appointed by President Obama to the Arctic Research Commission. Larry's current research deals with sonar imaging and remote characterization of the seafloor as well as advanced applications of 3-D visualization to ocean mapping problems and applications of mapping to Law of the Sea issues, particularly in the Arctic.

Mr. Edward Saade

Mr. Edward J. Saade, HSRP Chair, Group Director, Americas Region, President USA, Fugro

Edward J. Saade has 40+ years of Hydrographic, Coastal Zone Management, Geospatial Survey and Ocean Engineering experience. Since 2014, Mr. Saade responsibilities include the management of the largest of Fugro's Regional Divisions, overseeing a staff of 2,000, with over 25 offices located from Alaska to Chile. He has overseen the expansion of Fugro's capabilities to become the world leader in hydrographic LiDAR, multi-beam and backscatter data acquisition and mapping techniques for charting, Coastal Zone and Essential Fish Habitat analysis. These techniques have been directly applied to the offshore oil and gas and construction industries and a wide variety of national hydrographic offices including NOAA, CHS (Canada), GCS (Kingdom of Saudi Arabia, RAN (Australia) and SHOM (France). He has been actively involved in high resolution geophysical survey data acquisition and interpretation programs, both domestically and overseas. He holds a bachelor's degree in geology from the University of California, Santa Barbara, and completed Ph.D. courses and research in marine geophysics at the Hawaii Institute of Geophysics. Mr. Saade is a California

Professional Geophysicist, and has authored/coauthored over 70 reports and studies related to seafloor geology and sub-bottom conditions. He serves as the chair of the HSRP.

Rear Admiral Shepard M. Smith

Designated Federal Officer, HSRP, and Director, Office of Coast Survey, NOS, NOAA

Rear Admiral Shepard M. Smith became the director of the Office of Coast Survey (OCS) on August 26, 2016. As director, Smith is dedicated to advancing the Coast Survey initiatives of **modernizing digital charting**, increasing use of **autonomous systems for hydrography**, and **improved integrated navigation services for seaports**. Rear Adm. Smith serves as a presidentially-appointed member of the **Mississippi River Commission** that oversees navigation and flood control projects on the largest river system in the United States. Smith also serves as the chair of the **International Hydrographic Organization**'s (IHO) Council that comprises 30 leading IHO member nations and oversees performance management and business requirements. Hallmarks of Smith's career have been his leadership in the modernization of NOAA's charting systems and transformation of NOAA's hydrographic technologies to expand Coast Survey's data capabilities and support a data-enabled maritime economy. Smith was commanding officer of NOAA Ship *Thomas Jefferson*, on which he served three tours. During his latest tour, Smith became NOAA's first commanding officer to operationalize autonomous surface vehicles for mapping shallow areas previously inaccessible and uncharted. While chief of Coast Survey's Marine Chart Division, he changed the nation's charting tradition, established in the 19th century, by restructuring chart production and distribution. This modernization made U.S. navigational data more accessible to the public through a wider range of electronic formats, faster and more accurately. Smith has a bachelor of science degree in mechanical engineering from Cornell University and a master of science degree in ocean engineering from the University of New Hampshire. He received a direct commission to the rank of ensign in the NOAA Corps in 1993.